

Notice of Allowability

Application No.

10/047,141

Examiner

Albert Wang

Applicant(s)

ZHANG ET AL.

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 2 June 2005.
2. ☒ The allowed claim(s) is/are 1,3,4,7-12 and 16-24.
3. ☒ The drawings filed on 15 January 2002 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
 - * Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☒ Interview Summary (PTO-413), Paper No./Mail Date 20050816.
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

THOMAS LEE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100

DETAILED ACTION

1. This Office action is responsive to the amendment filed 2 June 2005.
2. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview and email correspondence with Bob Marley (Reg. No. 32,914) on 10 August 2005.

The claims have been amended as follows:

1. (currently amended) A communications system comprising:

a communication distribution network;

a plurality of communication cable access units, each coupled to the communication distribution network, and to a power supply is powered by a main power source, wherein the power supply includes a backup battery adapted to supply backup power to the associated communication cable access unit when the main power source fails, and wherein the power supply is further adapted to generate a status information signal indicating at least one of i) the presence of the backup battery, and ii) the power status of the backup battery when power fails, and wherein the communication cable access unit is adapted to responsively transmit information indicative of the status information signal via the communication distribution network;

an operator unit coupled via the communication distribution network to at least one of the plurality of communication cable access units, ~~and~~ adapted to request and receive from the communication cable access unit information indicative of the to status information signal generated by the coupled power supply , and further adapted to monitor backup power source status information from a plurality of communication cable access units located at respective different subscriber premises and maintain at least a partial count of the number of

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communication cable access units respectively reporting a backup power source on condition within a predetermined service area;

a processor unit coupled to the operator unit, the processor being adapted to receive and access the communication cable access unit information indicative of the ~~to~~ status information signal generated by the coupled power supply; and

a user interface display, responsive to the processor, and adapted to provide an indication of the respective battery status information for an associated communication cable access unit.

2. (cancelled)

3. (previously presented) A system as claimed in claim 1, wherein said operator unit is further adapted to generate an alarm message, including an identification of the associated communication cable access unit, on the user interface when status information on the backup power source is received from said associated communication cable access unit indicating a backup power source on condition detected at the monitored communication cable access unit.

4. (previously presented) A system as claimed in claim 1, wherein said operator unit is further adapted to generate an alarm message, including an identification of the associated communication cable access unit, on the user interface when status information on the backup power source is received from said associated communication cable access unit indicating at least one of a backup power source on, a backup power source missing, and a backup power source needing replacement condition detected at the monitored communication cable access unit

5. (cancelled)

6. (cancelled)

7. (currently amended) A system as claimed in claim 1, wherein the operator unit is further adapted to display on the user interface a generalized indication of a service area wide warning condition in lieu of individualized indications for each communication cable access unit when the count of the number of communication cable access units reporting a backup power source on condition exceeds a predetermined value.

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8. (original) A system as claimed in claim 4, wherein said backup power supply is a secondary alternating current power feed.

9. (original) A system as claimed in claim 4, wherein said backup power supply is a generator.

10. (original) A system as claimed in claim 4, wherein said backup power supply is a fuel cell.

11. (original) A system as claimed in claim 4, wherein said backup power supply is a solar cell.

12. (original) A system as claimed in claim 4, wherein said backup power supply is a battery.

13. (cancelled)

14. (cancelled)

15. (cancelled)

16. (original) A method of remotely sensing the power supply states of communication cable access units coupled to a communications network, comprising:

operably coupling a plurality of communication cable access units to a communication network, the cable access units each coupled to a respective power supply powered by a main power source, and said power supply having a backup battery adapted to supply backup power to an associated cable access unit when the main power source fails;

monitoring power supply status information from at least one of the cable access units by:

generating a status information signal by the power supply associated with the cable access unit to be monitored indicating at least one of the presence of the backup battery and the power status of the backup battery when the main power fails,

obtaining, at the cable access unit, access information on whether the cable access unit is capable of obtaining the status information on the backup battery, and when so capable, acquiring said status information on the backup battery,

transmitting, from an operator unit to the cable access unit via the network, a request for the access information and status information from the cable access unit for transmission back to the operator unit via said network,

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sending the access information back to the operator unit from the cable access unit via the network, and including the status information when the access information indicates the cable access unit is status information collection capable,

processing, at the operator unit, said access information, and also said status information when the access information indicates the cable access unit is status information collection capable, and

displaying an indication of the respective battery status information for an associated cable access unit on a user interface coupled to the operator unit.

17. (original) A method as claimed in claim 16, further comprising generating status information by the power supply on the backup battery selected from at least one of backup battery on information, backup battery missing information, and backup battery needing replacement information.

18. (original) A method as claimed in claim 17, further comprising generating by the operator unit an alarm message, including an identification of the associated cable access unit, on the user interface when status information on the backup battery as received from said cable access unit indicates at least one of a backup battery on, a backup battery missing, and a backup battery needing replacement condition for the monitored cable access unit.

19. (original) A method as claimed in claim 18, further comprising acquiring backup battery status information from a plurality of cable access units located at respective different subscriber premises, and simultaneously displaying, on the user interface, individualized indications of the respective battery status conditions associated with the respective cable access units.

20. (original) A method as claimed in claim 19, further comprising maintaining a count of the number of cable access units reporting a backup battery on condition within a predetermined service area.

21. (original) A method as claimed in claim 20, further comprising displaying a generalized indication on the user interface of a service area wide warning condition in lieu of individualized indications for each cable access unit when the count of the number of cable access units

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reporting a backup battery on condition within the predetermined service area exceeds a predetermined value.

22. (original) A method as claimed in claim 16, wherein said acquiring of the status information on the backup battery includes providing a hardware unit detecting and receiving the status information from the power supply, and providing a processor unit checking to determine whether the cable access unit can acquire the backup battery status information via the hardware unit, and when acquired, said processor unit retaining said status information until said request is received at the cable access unit from the operator unit.

23. (original) A method as claimed in claim 16, wherein said obtaining of status information on the backup battery is performed on a periodic basis.

24. (original) A method as claimed in claim 16, further comprising at least one user device coupled to the cable access unit and adapted to receive at least one of communications and data over the network via said cable access unit in which the user device is one of a phone unit, a television, an answering machine, and a computer.

The following is an examiner's statement of reasons for allowance:

CableLabs, *PacketCable Embedded MTA Primary Line Support Specification*, PKT-SP-EMTA-PRIMARY-I01-001128, 28 November 2000, teaches a plurality of cable access units, each coupled to a network, and a power supply with a backup battery, wherein said power supply generates status information regarding the battery, and wherein the cable access unit transmits signals indicative of the battery status for remote monitoring over the network. CableLabs does not expressly teach an operator unit with user display for providing an indication of the battery status information for a cable access unit.

Anderson, U.S. Patent No. 5,961,604, teaches an operator unit for remote monitoring with a user display to provide battery status information of power supplies for cable access units.

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The prior art of record does not teach or suggest, individually or in combination, remote monitoring of backup batteries for power supplies of cable access units with an operator unit having a user display for maintaining at least a partial count of the number of communication cable access units respectively reporting a backup power source on condition within a predetermined service area;

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

3. Pursuant to MPEP 606.01, the title has been changed to read:

**-- REMOTE MONITORING AND DISPLAY OF BACKUP BATTERY STATUS
OF POWER SUPPLIES FOR COMMUNICATION CABLE ACCESS UNITS --**

4. Claims 1, 3, 4, 7-12 and 16-24 are allowed.

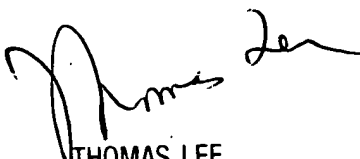
5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Albert Wang whose telephone number is 571-272-3669. The examiner can normally be reached on M-F (9:30 - 6:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas C. Lee can be reached on 571-272-3667. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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